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WISCONSIN
DEPT. OF NATURAL RESOURCES

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Waste Reduction:

Thinking More About Less

Introduction

Recycling is working in Wisconsin! That's probably not news to you. It's working because our Recycling Law placed an emphasis on helping local communities establish recycling programs, and these communities and their residents responded. Today, 94% of the people in Wisconsin recycle, and 85% of them favor or strongly favor the Recycling Law. However, recycling is only one way to deal with solid waste issues. Reduction and reuse, as designated by the Recycling Law, have a higher priority than recycling in the state's solid waste management hierarchy.

Reduction is preferred over recycling because there is no cost or bother of handling materials not generated in the first place. Also, waste reduction and reuse practices use less energy and fewer natural resources than recycling or disposal, and they can save you money too!

Waste reduction—and to some extent reuse—are more difficult concepts to communicate than recycling. While recycling has a prescription for implementation (recyclables identified, community programs for collection, etc.), reduction and reuse have no prescription and are more subjective. Also, recycling takes place when you're through with an item and requires little thought once you're told how to do it; reduction and reuse are initiated when you purchase an item and you must make some decision about waste reduction at that time. There are many ways to reduce and reuse, but each situation requires thoughtful choices based on a wide range of variables. The challenge is to help consumers make purchasing decisions that favor waste reduction by telling them *how* to think, not *what* to think.

To this end, the Wisconsin Department of Natural Resources (DNR) formed the Waste Reduction Coalition. This innovative partnership brings together a diverse group of organizations which have a vested interest in waste reduction and recycling. Members work together to develop and deliver clear, useful, and consistent messages about waste reduction and reuse. They focus on delivering messages about purchasing decisions and their impact on the waste stream. This seems to be the most cost-effective way of reducing trash and conserving natural resources.

The Coalition wants to build on recycling's success and make reduction and reuse as popular as recycling. To accomplish this goal, coalition members reviewed consumer and recycling behavior literature and conducted several focus groups in Wisconsin. We learned about the

attitudes, behaviors, needs, and characteristics of consumers and recyclers (very little research had been done on reduction and reuse). With this knowledge, we developed *Waste Reduction: Thinking More About Less* using the following guidelines:

- Use positive messages to encourage people to take action (negative messages discourage taking action).
- Use a variety of approaches and locations to reach people.
- Select specific behaviors to be modeled; once the behavior is learned, the general pattern can be duplicated.
- Develop programs where peers model desired behaviors; work with established groups of peers.
- Get people to make a verbal or written commitment.

The Wisconsin Waste Reduction Coalition:

Associated Recyclers of Wisconsin

Citizens for a Better Environment

City of West Allis

Dunn County

Fleming Companies

Keep Greater Milwaukee Beautiful

University of Wisconsin—Extension

Wisconsin Dept.of Ag., Trade, & Consumer Protection

Wisconsin Department of Natural Resources

Wisconsin Grocers Association

Wisconsin Merchants Federation

Goal

The Waste Reduction Coalition wants to reduce the amount of waste generated in Wisconsin by changing consumer behavior. By using *Waste Reduction: Thinking More About Less* as a program for established groups, we hope to reach consumers and help them:

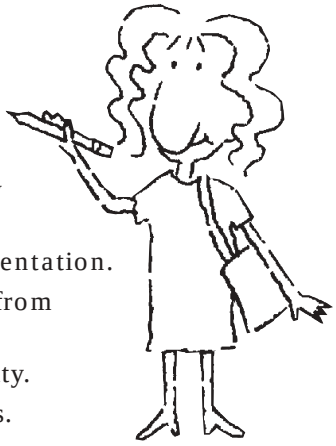
- understand their impact on the waste stream
- develop critical thinking skills
- consider waste reduction when making purchasing decisions
- identify and initiate several waste reduction behaviors.

Program Delivery

Waste Reduction: Thinking More About Less is a fast-paced, interactive program designed for facilitators or educators, like yourself. The program provides activities, supplementary materials and handouts for presentations to established groups. Your job is to promote the program and lead each group through the activities, encouraging audience participation and dialogue.

You don't have to be an expert on waste reduction and reuse, or even recycling to present this program. Reduction and reuse choices should be based on each situation and are highly subjective. If asked, "Which is better, *A* or *B* ?," give the question back to the group to discuss. Your job is to get them thinking. If asked a specific question on recycling, answer it quickly if you know the answer, or tell the person who asked the question to contact the local recycling specialist. Remember, this program is about reduction and reuse, not recycling, but no matter how hard you try to focus on reduction and reuse, recycling questions will still be asked!

Before You Teach



1. Read over all of the materials in this guide.
2. Preview the "BeSMART Game Show" video.
3. Assemble the juice containers (if not already provided) for "Which Juice for You?"
4. Select activities you will include in your presentation.
5. Make appropriate overhead transparencies from masters provided.
6. Reproduce handouts required for each activity.
7. Prepare Role Play Scripts and Scenario Cards.
8. Order support publications from DNR.
9. Confirm time, place, size of audience, and availability of TV/VCR, overhead projector and screen.
10. Practice: Do a "dry run"; check your time frame.

Program Components

Getting Started:

Welcome your participants and introduce yourself. Ask them:

1. How many of you recycle?
2. Is it worthwhile?
3. Why do you do it?
4. Are you willing to do a little more, especially if it helps the environment and helps you save money?

That's what *Waste Reduction: Thinking More About Less* is all about—helping the environment and saving money. In fact, our first activity is a game show called BeSMART (Save Money And Reduce Trash).

Key Components: The following activities make up the core of *Waste Reduction: Thinking More About Less* program and take approximately 40-45 minutes to present:

BeSMART Game Show :

Use the game show to introduce your audience to the solid waste problem and set the stage for waste reduction through individual responsibility. The show's hostess interacts directly with the audience.

At the end of the game show ask:

1. What does BeSMART mean?
   Save Money And Reduce Trash
2. What is the best way to manage your solid waste or trash?
   Make less waste in the first place.
3. Who is responsible for the amount of trash we generate in this country?
   Everybody is, but consumers ultimately choose what to buy, and what to throw away.

Taking the Next Step:

Select two members of the audience to explain the difference between recycling and waste reduction using this role playing activity.

Which Juice for You?:

Use orange juice containers and overhead transparencies to introduce the audience to the "Functions of Packaging," "Preferred Packaging Guidelines," and "Consumer Selection Criteria." Then give your audience the opportunity to "Rate Packages" and select the best juice container for given situations.

Waste Reduction Pledge—My 5% Solution:

Pass out the pledge sheets for this culminating activity. Ask members of the audience to identify ways they could reduce their waste by 5% and sign the pledge to do so. Encourage discussion if time permits. Let them keep their signed pledges.

Additional Activities:

These activities can be used to further enhance your program as time permits. (Teachers: use for small group discussions and/or assignments.)

Waste Reduction Scenario Cards (20 minutes):

Divide the audience into six groups and give each group a scenario card. Have the small groups develop shopping or idea lists for their scenarios and present them to the rest of the groups. The scenarios are: "Planning a Picnic," "Purchasing for the Office," ""Buying for Senior Citizen/Shut-In," "Handling Household Hazardous Waste (garage & yard)," "Stopping Mail," and "Going-Away Party."

Let's Go Shopping! (20 minutes):

In this activity, each individual gets to develop a shopping list giving consideration to waste reduction and situation of use. Pass out the *Waste Reduction: Think it through...it's up to you!* brochure and the *Let's Go Shopping!* activity sheet and lead a "shopping" discussion using the "So, think it through!" section from the brochure and the *Waste Reduction Guide for Packaging* chart on the bottom of the activity sheet. Ask members of the audience to develop their shopping list and share with the rest of the group.

Taking the Next Step: a Role Play

Activity

Scene: Mother and daughter (father & son) talking with each other the night before daughter's (son's) wedding.

Mom: Now that you're getting married, Jenny, it's time you and I had a private chat.

Jenny Mom. I'm 25 years old!

Mom: Yes, but I think we should talk about... you know... recycling.

Jenny Recycling? Mom, I've been doing most of the recycling around here for years! Besides, I'm not just recycling anymore.

Mom Oh, what else are you doing?

Jenny I'm taking the next step ... beyond recycling. I'm into waste reduction now.

Mom Waste reduction? What's that?

Jenny Oh, Mom! Waste reduction really comes before recycling. Recycling is collecting things that are already used and remaking them into new things. Waste reduction is using less of something or not using it all.

Mom Why is that so important?

Jenny Well, when you think about reducing waste as you shop, you don't buy as much and choose packages more carefully. You have less to throw away and help conserve our natural resources. What can be simpler than that?

Mom Sounds like a lot of work to me.

Jenny Oh, Mom. It's really easy. All of my favorite brands and products are available in a wide variety of packaging. I just look for items with the least amount of packaging, larger sized packages, and concentrates. Also, I try to buy reusable, durable items.

Mom Hey... I do some of that, I just don't think about it in that way.

Jenny Well Mom, if you think "Waste Reduction" every time you shop, you can help the earth and save money too.

Mom Save money?

Jenny Yes. Packaging costs money. The less packaging you buy, the more money you save!

Mom Well, I'm glad we had this little chat. I'm going to start thinking about waste reduction... Are you sure there isn't anything else we need to talk about?

Which Juice for You?

Activity

Background

Most recycling and waste reduction programs focus on packaging since it is a very large (25%) and visible portion of the waste stream. Consumers have the opportunity to significantly reduce the amount of packaging they buy and throw away, if they make purchasing decisions with waste reduction in mind.

Every day consumers make decisions about what to buy, and how to buy it, based on a number of factors—value, quality and convenience. An increasing number of consumers are also trying to evaluate the environmental consequences of purchasing certain products and the packages in which they are contained. They want to know which package is best for the environment. Unfortunately, there is no environmentally perfect package that fits all situations of use. Consumers need to understand the functions of packaging and have some guidelines for evaluating packaging before they can make sound decisions. With this background, they'll be able to select products with the least amount of packaging for their needs, and in most cases, save money too!

This activity will help people think about the functions of packaging and will focus on food packaging. A lot of energy and natural resources are consumed to produce the packaging used to promote, store, and deliver food products; approximately 7% of our household trash is food packaging. Is food packaging a waste? Or, does food packaging help reduce another large portion of our trash—food waste (7-10%)?

Goals

To encourage consumers to give equal consideration to quality, value, convenience, and environmental impact when making purchasing decisions.

To help consumers recognize the purpose and variety of packaging options available for each product.

To help consumers equate the selection of products that have the least amount of packaging with cost savings.

Materials Needed

- Orange Juice Containers
  - aluminum can
  - aseptic (juice box)
  - frozen concentrate
  - glass bottle
  - naval orange
  - paper carton
  - plastic bottle
- Overheads
  - *Functions of Packaging*
  - *Preferred Packaging Guidelines*
  - *Consumer Selection Criteria*
  - *OJ Cost/Waste Comparisons*
- *Rate the Package* Handout
- "Blue Ribbon" Awards

Procedure

1. Before the program: Read *Background* (page 5), *Note* (at the end of this activity), and "A Packaging Primer" on page 17. Assemble the orange juice containers listed above. If you were given a set of containers to do this activity, you'll only have to buy an orange. Use the cost/weight data provided or develop your own data using local prices. Finally, make a set of "Blue Ribbons" to use in Step 7.

2. Start the program: Discuss the variety of packaging options available for orange juice as you line up (on a table) and identify each orange juice container.

3. Explain the functions of packaging using the overhead provided. Ask members of your group to indicate which juice containers have examples of each function. Stress the important role food packaging plays in preventing food spoilage.

4. Using the Consumer Selection Criteria overhead, discuss the criteria consumers use to select certain products and the packages in which they are contained. Ask members of your group to indicate which juice containers have examples of each criteria. Since they're all one brand is quality an issue?

5. Generally speaking, consumers can have a positive impact on the environment by selecting products with the least amount of packaging. Use the Preferred Packaging Guidelines overhead to explain the packaging preferences developed by the Coalition of Northeastern Governors. Ask members of your group to indicate which juice containers are examples of each packaging option. Is an orange an example of no packaging? What about the peel?

6. Pass out the Rate the Package handout and divide your group into small groups based on the number of juice containers you have. Give each group a juice container and ask them to rate it.

Discuss the results.

7. Collect and line up the juice containers again. Ask your group to select a container for:

a. convenience: situation is food to go in a lunch box (Lunch Box Hero)
b. "environmentally friendly" packaging (Share the Earth)
c. price/value (Best Value)
d. picking up juice for a meeting, on the way to the meeting ("Last Minute" Special)
e. good "old-fashion" packaging (Grandma's choice)

Award a ribbon to each choice. Discuss the answers. Is there a perfect juice container for all situations?

8. Use the chart below (or develop your own chart based on current, local prices) to discuss the relationship between the amount of packaging (by weight) and cost per ounce of product. Is there a relationship? Determine the price and weight difference if you want to serve 10 people orange juice in 8-ounce servings.

Note: This activity focuses on the weight of a package or waste produced as an indicator of environmental impact. Without a very sophisticated life cycle analysis for each packaging type (and these are controversial), there is probably no better environmental indicator. Weight gives some indication of resources and energy used and resources potentially thrown away.

Some people may want to discuss their packaging choices with recycling and composting added to the equation, and you may want to lead such a discussion. Remember though, we are talking about choices and there are no perfect answers. We want to get people thinking and giving consideration to the environment. At the same time, we want people to understand that it's o.k. to consciously choose a more heavily packaged item because it better fits a particular situation of use.

OJ Cost/Waste Comparisons

Package	Price	Packaging Weight
Frozen concentrate	$.025/oz	.023 oz/oz
Carton	$.031/oz	.042 oz/oz
Plastic bottle	$.035/oz	.029 oz/oz
Naval orange	$.038/oz	.727 oz/oz
Aseptic (juice box)	$.048/oz	.047 oz/oz
Glass bottle	$.062/oz	.475 oz/oz
Aluminum can	$.069/oz	.052 oz/oz

* All items priced at Woodman's grocery store, Madison in December, 2002.

Rate the Package

As a consumer, you are concerned about the quality, convenience, value, and environmental impact of your purchasing decisions. Since most of the products you buy are available in a wide selection of brands, sizes, and types of packaging, choosing which selection is the best one to meet your needs is not an easy task. Brand choice is based on individual preferences, but size and type of packaging can be objectively evaluated. Use this form to help you compare packaging choices.

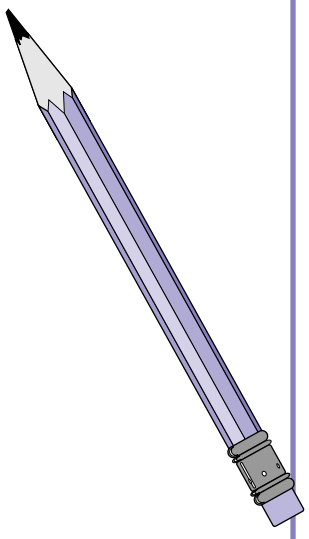
Product: _____

Brand name: _____

Type of packaging: _____

Does the packaging:

provide useful information?	yes	no
protect product during transport & storage?	yes	no
protect product from spoilage?	yes	no
protect against tampering?	yes	no
provide convenience in opening and using?	yes	no
provide the right amount of product for me?	yes	no



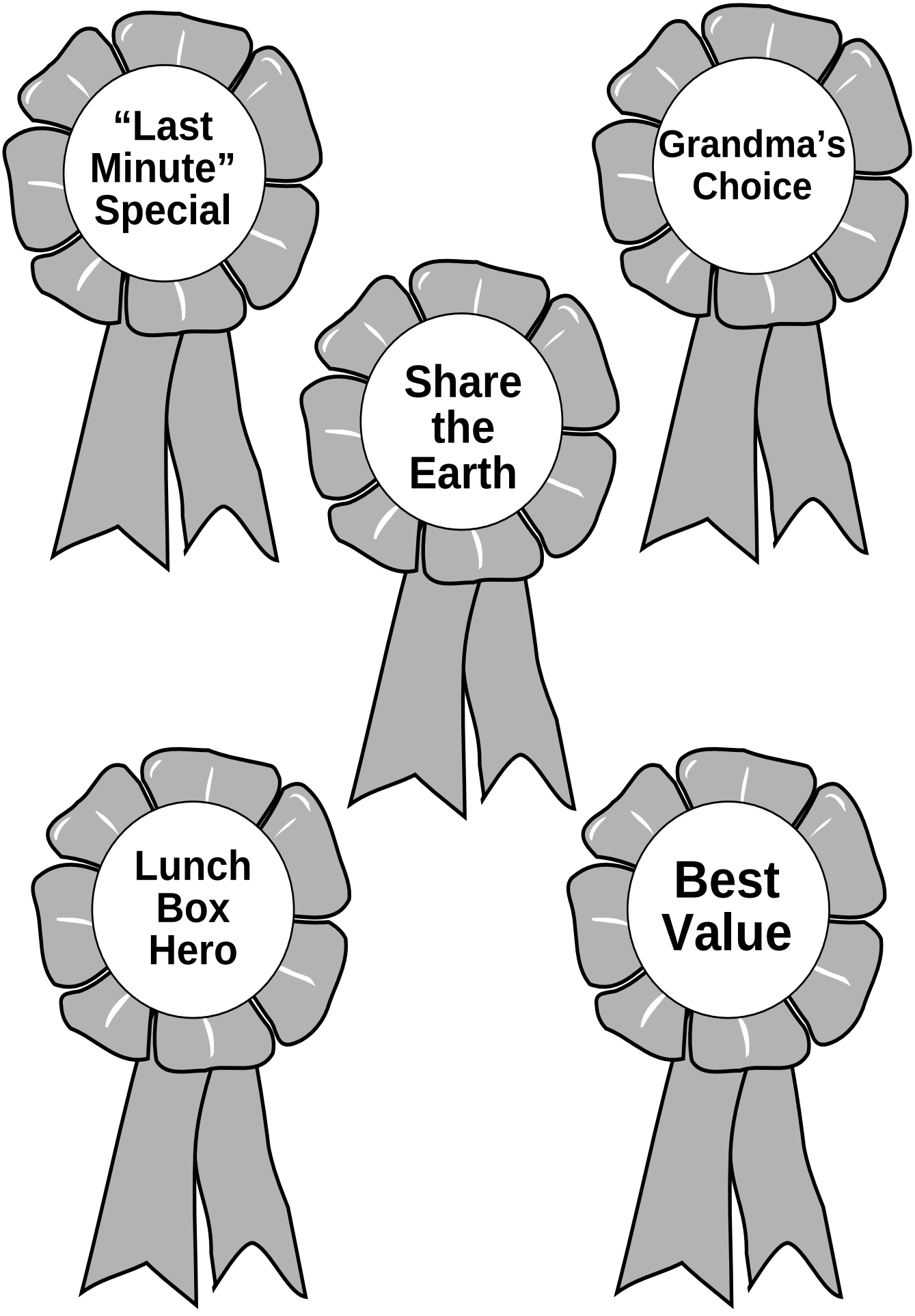
Is the packaging:

refillable or returnable?	yes	no
reusable?	yes	no
recyclable in your community?	yes	no
made from recycled material?	yes	no

Is the minimum amount of packaging used to meet packaging needs?	yes	no

Assign one point for each yes answer: Score: _____

Adapted from *Making It Second Nature*, University of Illinois, Cooperative Extension


“Last Minute” Special
Grandma’s Choice
Share the Earth
Lunch Box Hero
Best Value

Waste Reduction Scenarios

Activity

Divide audience into 6 small groups and give each group a scenario card. Ask each group to develop a shopping or idea list for its scenario and share with the rest of the audience.

Scenario 1: Picnic

Your family has a lot of "get-togethers," and it's your turn to plan a picnic for the whole family. Develop a list of "who needs to bring what" for a family gathering of 5. Now do the same for 20 and 50 people. Give consideration to quality, value, convenience, and environmental impact of the items you need to bring/buy.

Scenario 2: Office Supplies

You're a purchasing manager in a small insurance company and have just had your budget cut again. Develop a list of reduction and reuse practices you can implement that will save your company money while still maintaining a high level of service to your customers.

Scenario 3: Weekly Shopping for Senior. Citizen

You're responsible for doing the weekly grocery shopping for your grandmother who lives alone in a small house. Develop a shopping list for an average week and include the type of package you would buy for each product. Give consideration to quality, value, convenience, and environmental impact of the items you need to buy.

Scenario 4: Home Maintenance

You've just moved into your first new home and have to buy products for home and yard maintenance. You're concerned about the environmental impact of potentially hazardous household products and the waste they may produce. Develop a shopping list of products you'll need this spring.

Scenario 5: Unwanted Mail

Now that you're recycling and purchasing items with waste reduction in mind, you find that the bulk of your trash seems to be unwanted mail. Develop a list of ideas on how to reduce the amount of unwanted mail delivered to your home or office.

Scenario 6: Good-bye Party

A class/office mate is moving, and you're planning a good-bye party at school/office for him/her. Approximately 25 people will attend. With waste reduction in mind, develop a list of decorations, refreshments, and food service items for the party.

Let's Go Shopping

Activity

Waste Reduction: Think it through...it's up to you! will help you plan a shopping trip with waste reduction in mind. It starts with making a shopping list and asking some basic questions. Use this brochure and the Waste Reduction Guide for Packaging below to plan a shopping trip. Select a product and indicate :

a. the least wasteful type of package you would choose for each category.

b. the most practical package for your situation.

Fruits & Vegetables	Meat
Dairy/Eggs	Bread/Pastry
Pasta/Grains	Cereal
Soup	Cookies/Crackers
Juice/Soda	Snacks
Laundry Detergents/Dish Soaps	Cleaning Products
Dog/Cat Food	Other

Waste Reduction Guide for Packaging

	Containers	Bags	Package size	Product Life *
Least waste	returnable	none	concentrate	long-lasting
	reusable		bulk	
		reusable		reusable
	recyclable		economy size	
Most waste	disposable	single use	single serving	single use

* Frequently replaced products generate more packaging over time.

My 5% Solution

Indicate ☑ the activities you pledge to do to reduce the amount of waste you throw away by 5%.

I pledge to:

- ❑ Take bags back to the store to carry groceries home again.
- ❑ Use my own cloth or mesh bag on shopping trips.
- ❑ Purchase milk in returnable bottles and return them for deposit.
- ❑ Buy home maintenance, lawn and garden, automotive, and hobby and craft products in smaller amounts so they can be used up quickly and completely.
- ❑ Use some alternative methods for pesticides such as planting plants that repel insects or weeding by hand.
- ❑ Buy durable, reusable products whenever possible.
- ❑ Learn which packages are reusable/refillable and purchase products that are in them.
- ❑ Donate usable clothing and household items to a reuse organization.
- ❑ Use sponges/dish cloths for cleaning up spills.
- ❑ Cancel unnecessary publications and unwanted mail.
- ❑ Take reusable plates and utensils to picnics and “tail-gate” parties.
- ❑ Use a ceramic coffee cup at work or for meetings.
- ❑ Buy products in concentrated form to reduce the amount of packaging.
- ❑ Buy products in larger sizes and place smaller quantities in reusable containers.

Signed: _____

Functions of Packaging

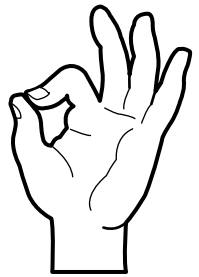
- Containment
- Protection
- Information
- Convenience

Food spoilage in US is less than 3% for processed foods and 10-15% for fresh foods.
In developing countries, food spoilage can be up to 50%.

Consumer Selection Criteria

EZ

convenience



quality

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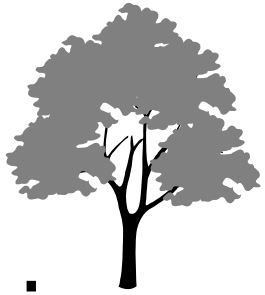
value



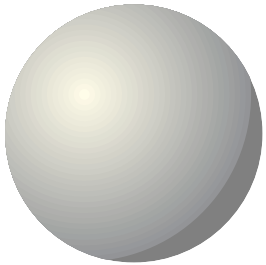
environment

Preferred Packaging Guidelines*

- no packaging
- minimal packaging
  - fewest number of layers
  - fewest number of materials
  - least weight
- returnable, refillable, reusable
- recyclable, recycled materials

* Coalition of Northeastern Governors

OJ Cost/Waste Comparisons



Package	Price*	Packaging Weight
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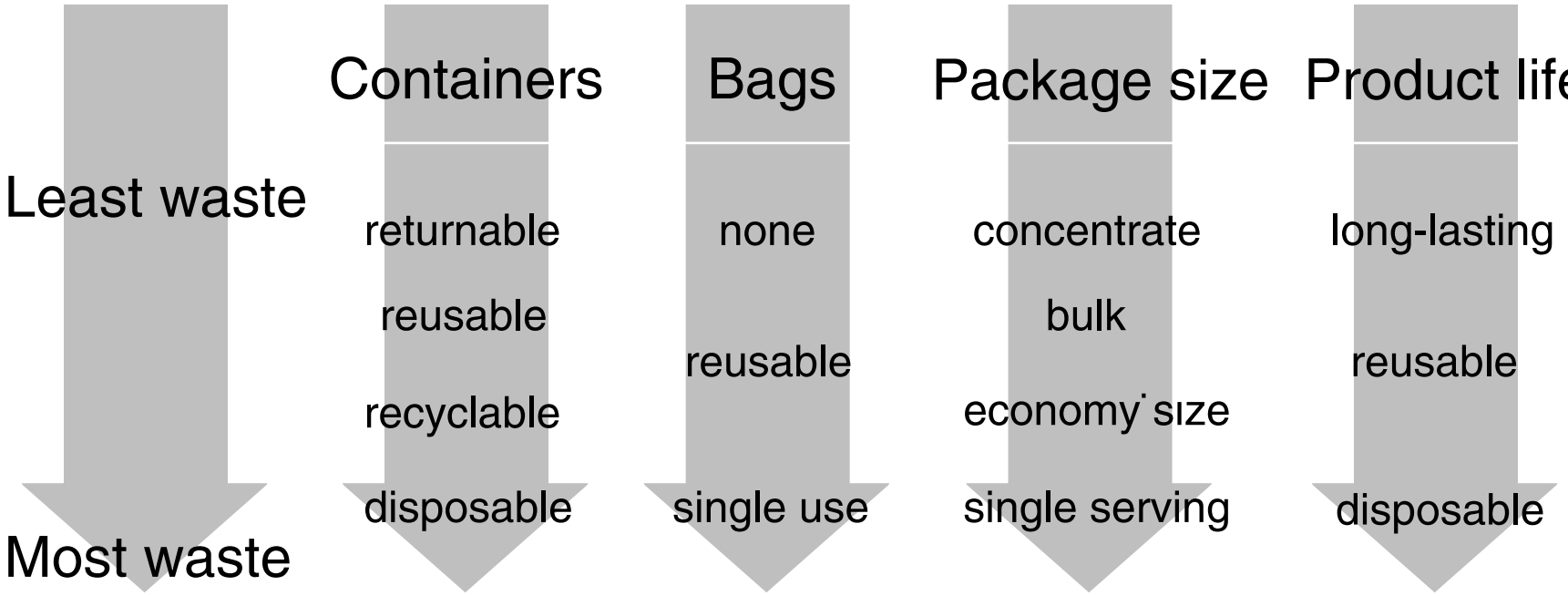
Waste Reduction Guide for Packaging



* Frequently replaced products generate more packaging over time.

A Packaging Primer

Packaging is a $75 billion business in the United States, and one dollar out of every eleven dollars spent on groceries is for packaging. Is packaging wasteful and expensive, or does it serve a necessary function? Let's look at the many sides of packaging.

Package Profile

A package is a protective unit for storing or shipping a commodity and comes in three basic forms:
Rigid — strong and retains its shape even when subjected to external and internal pressure. If subjected to force strong enough to distort it, it usually breaks or exhibits permanent damage. Examples: cans, glass bottles and jars
Semi-rigid — retains own shape, will deform and return to original shape when subjected to moderate pressure. Examples: plastic trays and squeeze bottles
Flexible — generally takes the shape of the packaged product. It can be distorted with ease and does not return to its original shape. Examples: bags, plastic film, and aluminum foils

Four basic materials are used to make packages: paper, glass, plastic, and metal. Packages can be made with a mixture of these materials.

Functions of Packaging

Containment: Packaging's original and oldest function is containment -- holding the product. It's been around since the prehistoric people used shells, bark, animal parts, etc. to hold food and water.

Protection: Packaging's most complicated function is protection —keeping the product from spoiling or breaking, or keeping the product from harming the "outside" world. Probably the first product to be protected from spoilage was "corked" wine in the 16th century. Food wasn't protected from spoiling until the advent of canning in the early 19th century. Today, the consuming public is also protected through the use of tamper-evident and child-resistent designs, and packaging intended to make shoplifting more difficult.

Information: The package is often the only link between the manufacturer and consumer, and in today's world, information is an important part of the package. Besides the obvious role of marketing the product, information simply helps identify what's inside the package. It also provides instructions or directions for use and consumer information (contents, warnings, etc.).

Convenience or "utility of use": This function of packaging is frequently the most often maligned. Either the package is difficult to get into or convenience is thought to be an unnecessary function resulting in excess packaging. Convenience makes a product more accessible when a package is easier to use. Toothpaste tubes, squeezable bottles, and zip-lock bags all make products easier to use than was the case before these packages were invented. The variety of packaging sizes for individuals, families, and larger groups is also a function of convenience.

Packaging Economics

We are no longer a rural society served by home grown foods and products distributed through local markets and small shops. Most of our products originate in one location, and, through a series of manufacturing and transportation steps, end up in a store at another location. Our society relies on a complex delivery system to provide the products we need and that delivery system relies on packaging.

The packaging industry is highly competitive. Makers of packaging compete with each other to sell their packages to product manufacturers. These manufacturers want the best package for their product at the least cost; they have no interest in buying more packaging than is necessary. Their purchasing departments are constantly challenging the makers of packaging to do more at less cost, and they don't hesitate to switch suppliers. Consequently, packagers are continually researching and improving packaging. They have found many ways to reduce the amount of materials used in making packages, which also impacts the amount of packaging thrown away.

Manufacturers are often accused of overpackaging their products. This makes no business sense. In some instances "overpackaging" may be the result of sales appeal over cost or the need for protection against shoplifting, but in most instances overpackaging claims are a result of misunderstanding about the functionability of packaging. Some people may claim that smaller or single serving packages are an example of wasteful packaging. It's true that larger packages use proportionately less packaging materials than small, but if a single person buys the large, economy size of a

perishable product and throws most of it away, that person is doing the environment and her/his pocketbook a disservice.

The Package as Trash

Discarded packaging makes up about one third of our municipal waste stream. Half of this is consumer product packaging (the stuff we bring home); the rest is shipping related (pallets, crates, cartons, etc.). Approximately 7% of our household waste is food packaging.

Recycling and waste reduction have had a dramatic impact on the amount of packaging thrown away in Wisconsin. In the last 15 years, Wisconsin's population increased 9% and the number of households increased 17%. During this same period of time the amount of packaging nationally increased 42%, but the amount of packaging thrown away only increased 13%. Consumer recycling and packaging modifications by manufacturers (mostly through source reduction) are the reasons for this difference.

What happens to packaging when it's finally put in a landfill? Nothing. That's right, it just stays there. Landfills are designed to limit air and water infiltration, and consequently, things decompose or degrade very slowly in them. Twenty-five year old newspapers dug out of landfills are still intact and readable! Therefore, it makes no sense to select a package for biodegradable or photodegradable characteristics if the package ends up in a landfill.

Preferred Packaging Guidelines

The Coalition of Northeastern Governors was formed in the late 1980s to evaluate packaging issues as they relate to waste or source reduction. They established the following Preferred Packaging Guidelines as a tool to help consumers and manufacturers evaluate packaging for waste reduction:

No Packaging: Some products don't need a package. They have their own (oranges, apples, coconuts, etc.), or they are very durable and identifiable (hammers, basketballs, etc.). Refuse packaging and bags when you don't need them.

Minimal Packaging: Some products come in a variety of packages. Look for packaging that performs its various functions using the minimum amount of material (fewest number of layers, fewest number of materials, or least weight).

Returnable, Refillable, Reusable: Look for packaging that can be returned to industry for reuse (milk and beer bottles); refilled by taking the package back to the store to be filled or by buying a lighter-weight package designed to fill initial package (detergents); or reused to store other items (jars with resealable tops).

Recyclable, Recycled Materials: Look for packages that can be recycled in your community (collected, processed and made into new product or package) and packages made from recycled materials. Aluminum and steel cans and glass bottles and jars are usually made with some recycled materials. Many paperboard boxes and some plastic bottles also have some recycled content. Look for these symbols:

recyclable

made with recycled materials

Avoid Excess Packaging: Compare the size of the package to the size of the product. If there appears to be far more packaging than product, choose another product with less packaging.

Consumer Selection Criteria

Most products come in a variety of sizes, brands, and packaging choices and are available in those forms as long as consumers are buying them. Product manufactures want consumers to buy their products and invest in consumer research to determine why consumers buy what they do. Consumer research indicates that product quality and value seem to be the most important criteria for consumer selection, with convenience being a very close third. Environmental impact ranks fourth as a selection criteria in many studies. This means that consumers will select products based on quality, value, and convenience first, and then use environmental impact (less waste, recyclability, ozone protection, etc.) to help them make a decision.

If consumers were more aware of the direct link between waste reduction and cost savings, would they give more consideration to the type of packaging when making product selections?

Sources:

The Science of Packaging and Its Role in a Modern Society. 1995. Robert Testin. Clemson University.

Environmental Shopping: A Consumer Environmental Education Teaching Packet. 1993. Brenda Cude. University of Illinois at Urbana-Champaign, Cooperative Extension.

BeSMART Game Show

Welcome to BeSMART,

the game show where you, the audience, are the contestants, and I,_____ your glamorous hostess get to find out how SMART you really are! Each week we pick a topic that will help you Save Money And .... do something good for the earth. This week's topic is....

Reduce Trash! ....Reduce Trash?...Yes, that's right. This week's participants have the opportunity to BeSMART by Saving Money And ... Reducing Trash.

Here's how we play the game:

I'll ask you a BeSMART question and give you a few seconds to think of your answer. Don't raise your hands or shout out the answer, just jot it down in your mind. Remember, we're going to BeSMART and not waste any paper writing down answers. Besides, I can trust you to BeHONEST too, can't I?

After each question, I'll give you the answer as determined by our panel of experts.... Keep score by counting on your fingers. I'll help you by asking only 10 questions!

Are you ready? Let's see how SMART your really are.

Question number 1. The amount of trash we generate in this country is...

a. decreasing?
b. increasing?
c. staying the same?

Answer: b. increasing. As you can see by this chart, Americans are generating more and more solid waste or trash each year. Please note, even though more people are recycling, as seen in yellow, the amount of trash we burn and landfill is still increasing.

Question 2. Why is the amount of trash we generate increasing?

a. amount of packaging increasing
b. population increasing
c. number of households increasing
d. all of the above

Answer: d. all of the above. In the last 15 years, Wisconsin's population increased 9% and the number of households increased 17%. During this same period of time the amount of packaging produced nationally increased 42% and the amount of packaging thrown away after recycling increased 13%. We have more people, more households, more packaging... more trash!

Question number 3. In many communities, after schools and police and fire services, what is the next most expensive item paid for by your property tax?

a. snow removal & street sweeping
b. trash, yard waste, & recycling services
c. administration

Answer: b. trash, yard waste, & recycling service. Whether you rent or own a home, you pay for these services. In some communities it's part of your annual property tax bill.

Question number 4. What is the best way to manage your solid waste?

a. throw it all away
b. recycle everything you can
c. make less waste in the first place

Answer: c. make less waste in the first place. The waste you generate, and even your recyclables, still have to be handled and managed -- this takes time, money...and trucks driving all over the place. If you make less waste in the first place, you and your town have less to handle and pay for.

Question number 5. What percent of our solid waste is packaging?

a. 52%
b. 33%
c. 18%

Answer: b. 33% . That's about 600 pounds per year for each of us.

Hey, Question 6 is on our daily double card. You get two points (that's two fingers) for a correct answer! And the question is... The average family spends $94.00 each week for groceries. How much of that is spent on packaging?

a. $8.55
b. $5.25
c. $1.22

Answer: a. $8.55 a week. $ 1 out of $11 spent on groceries is for packaging. In a year's time, the average family will spend $446.60 on packaging... which they throw away... Remember, if you got this right, count it twice!

Question number 7. Why is it important to reduce the amount of trash we generate?

a. save landfill space
b. conserve natural resources for future generations
c. save money
d. all of the above

Answer: d. all of the above. Though communities may have established recycling programs to save landfill space and save money, conserving our natural resources for future generations may be the most important reason to reduce, reuse, and recycle.

Question number 8. Who is responsible for the amount of household trash generated in this country?

a. government
b. manufacturers
c. retailers
d. consumers

Answer: d. consumers. Most people put the "blame" equally on themselves and manufacturers, but in reality, "what you buy affects what you throw away." Manufacturers and retailers offer a variety of packaging choices, including those that reduce waste; consumers encourage manufacturers to continue making a particular type of package by buying it.

Question number 9. In 1995, 97% of the people in Wisconsin were recycling. Why do most people recycle?

a. it's the law
b. for the good of the environment
c. to make money
d. their kids make them do it

Answer : b. for the good of the environment. 65% of the people in Wisconsin recycle it for environmental reasons, 19% because it's the law, and 8% for financial gain. Let's hope that 97% of the people will BeSmart too!

And finally, question number 10. What is the most important thing you can do to Save Money And Reduce Trash?

a. stay "tuned" to the following program and find out

That's right, there's only one correct answer: stay "tuned" to the following program and find out.

Well, how did you all do? How SMART are you?

How many got more than 4 correct? Don't be bashful, raise your hands...Wow!

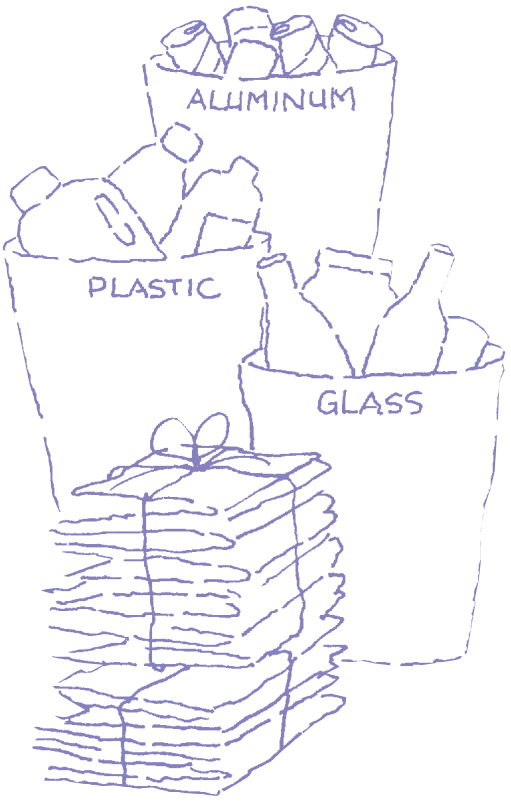
How many got more than 6 correct? More than 8? Say, this group is really great!

How many got all of the answers right? You ran out of fingers, didn't you?

It looks like you're SMARTer than you thought you were.

That's all for me today. This is your glamorous hostess _____ signing off. And thank you for Being SMART.

The use of specific examples seen in this program should not be seen as endorsing or condemning any specific product or business and does not signify approval to the exclusion of others.



Waste Reduction & Recycling Resources

Agencies and Organizations

Keep Greater Milwaukee Beautiful

A non-profit organization promoting responsible solid waste management in southeast Wisconsin. Community Outreach; Teacher Education; Business Services: 5-Star Waste Reduction and Recycling Program, Environmental Compliance Seminars, Clearinghouse for "Who to Contact" for Solid Waste and Pollution Prevention Assistance. 414-272-5462

Solid and Hazardous Waste Education Center

University of Wisconsin-Extension education and technical assistance on waste reduction for communities, businesses and institutions. Madison Area Office: 608-262-0385; Milwaukee Area Office: 414-227-3160

Southeast Wisconsin Waste Reduction Coalition

Residential and business programs promoting waste reduction. General information: 414-896-8300. World-Wide-Web Site: http://www.besmart.org

WasteCap Wisconsin

A voluntary and non-regulatory program that provides solid waste reduction and recycling assistance to the business community. 414-961-1100

Waste Reduction and Recycling Specialists

DNR specialists offer technical assistance for local governments, institutions, and businesses. Eau Claire: 715-839-3700; Green Bay: 920-492-5800; Madison: 608-275-3266; Milwaukee: 414-263-8500; Spooner: 715-635-2101

Waste Reduction and Recycling Demonstration Grants

This DNR program provides cost-shared grants for innovative waste reduction projects. General Information: 608-266-7555

Wisconsin Waste Reduction Coalition

Members from public and private sectors work together to develop and promote waste reduction and reuse in Wisconsin by focusing on purchasing decisions and how those decisions affect the amount of waste produced. Study Guides; Brochures; Displays; Media Materials; Community Activity Guides; Resource Library. 608-266-2711

Publications

The following DNR waste reduction and recycling education materials are available at no cost to Wisconsin residents:

General Publications:

Green Machine. March 2002. Wisconsin Natural Resources Magazine. PUB-CE-053. Tips for a cleaner, greener driving experience. Also found on this DNR web site: http://www.dnr.state.wi.us/org/caer/cea/projects/pollution/p2/2000/greener/index.htm

*Household HazWaste: Reduction as your first choice. 1995, PUB-SW-738. Easy steps to reduce the amount of potentially hazardous products in your home and disposal options.

*Waste Reduction and Recycling: A Guide for the Workplace. 2001. PUB-CE-278. Learn how to set up a reduction, reuse, and recycling program in a business or institution.

Waste Reduction: Think it through, it's up to you. 1999. PUB-IE-206. Handy little pamphlet on making smart purchasing decisions.

*Wisconsin Waste Reduction and Recycling Program. 2000. PUB-WA-422. Synopsis of Wisconsin's Recycling Law.

Composting and Yard Care:

*Home Composting: Reap A Heap of Benefits. 2001. PUB-WA-072. An easy guide to home composting.

*Home Composting: The Complete Composter. 1993. PUB-SW-182. A thorough guide to home composting.

*Yard Care: Do Your Share. 2001. PUB-WA-073. Easy ways to manage yard waste.

Education:

EEK! DNR's Web Site for Kids (do a search for "recycling"). http://www.dnr.state.wi.us/org/caer/ce/eek/

*Fourth "R": An Action Booklet for Recycling in the Classroom and School. 1993. PUB-IE-035. A guide for practicing what you teach. This booklet contains ideas to help students, teachers, and other school staff practice reduction, reuse, and recycling in the classroom and throughout the school.

*K-3 Supplement to the Recycling Study Guide. 1990. PUB-IE-049. This supplement provides recycling activities and work sheets for younger students.

*Natures Recyclers Coloring Book. 1993. PUB-IE-042. Fun coloring book about nature's recycling role. Only available on *EEK!* (see above).

*Natures Recyclers Activity Guide. 1990. PUB-IE-043. Teaching activities about nature's recyclers. Only available on DNR's web site listed below.

Recycling and Beyond: Fun Stuff. 2001. PUB-CE-254. This coloring/activity book follows the paths recyclables take as they leave your home and return as new products and has activities that focus on waste reduction. (also found on *EEK!* see above)

*Recycling Facts and Figures. 2002. PUB-CE-163. The latest Wisconsin statistics on waste generation and disposition.

*Recycling Study Guide. 2003. PUB-CE-020. A teacher's guide for grades 4-12 covering the garbage issue from awareness to action. Update web-only version at: http://www.dnr.state.wi.us/org/aw/wm/publications/index.htm#recycling

Vermicomposting: A Teachers Guide for Composting with Worms. 1998. PUB-CE-254.

* These publications can be found on DNR's web site at: http://www.dnr.state.wi.us/org/aw/wm/publications/index.htm

The remaining publications can be ordered from:

Bureau of Waste Management
Wisconsin Department of Natural Resources
Box 7921
Madison WI 53707

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The Wisconsin Waste Reduction Coalition:

Associated Recyclers of Wisconsin

Citizens for a Better Environment

City of West Allis

Dunn County

Fleming Companies

Keep Greater Milwaukee Beautiful

University of Wisconsin—Extension

Wisconsin Dept.of Ag., Trade, & Consumer Protection

Wisconsin Department of Natural Resources

Wisconsin Grocers Association

Wisconsin Merchants Federation

Dedicated to the memory of
Christy Dixon:
recycler, environmental educator, friend of the earth

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